WE CLAIM:

1. A method of controlling a fuel-cell system which comprises:

(a) connecting a multiplicity of individual electric power generating units selected from individual fuel cells and fuel-cell stacks in an assembly by electrical connections selected from series and parallel connections, thereby generating electric power and producing heat for at least one energy consuming load; and

(b) controlling power produced by said assembly to match an actual load point of said load and electrical current density required by said load exclusively by cutting off and turning on one or more of said units.

2. The method defined in claim 1, further comprising the step of monitoring operation of said energy consuming load, the power produced by said assembly being controlled in response to the monitoring of said operation.

3. The method defined in claim 1 wherein the cutting off and turning on of individual fuel cells or stacks is carried out so that the individual fuel cells or stacks remaining in

operation bring the assembly as close as possible to the load point actually required for most effective operation of the energy consuming load in terms of actual energy utilization or for readiness for the maximum electrical and/or thermal energy which may be required.

4. The method defined in claim 1 wherein the cutting off and turning on of individual fuel cells or stacks is carried out in accordance with demand requirements of the electrical or thermal load and the individual fuel cells or stacks remaining in operation are operated as close as possible to the most effective load point in terms of demand requirements.

5. The method defined in claim 1 wherein, in the control of the fuel-cell system in response to a thermal load, the optimum load point for a maximum electrical efficiency is ignored to establish a greater thermal output, and in the control of the fuel-cell system in response to an electrical load the optimum load point for the greatest thermal efficiency is ignored to maximize electrical output.

6. The method defined in claim 1 wherein the stepwise cutting off and turning on of individual fuel cells or stacks is

balanced by modulation of individual fuel cells or stacks remaining in operation.

7. The method defined in claim 1 wherein a temperature is measured in a region of interconnection of the thermal load to the assembly and/or in the thermal load, and the fuel-cell system is controlled in response to the measured temperature.

8. The method defined in claim 1 wherein the individual cells or stacks of said assembly have different power outputs and operating parameters.

9. The method defined in claim 1 wherein the individual cells or stacks of said assembly have different nominal load points.

10. A fuel-cell system comprising:

a multiplicity of individual electric power generating units selected from individual fuel cells and fuel-cell stacks connected in an assembly by electrical connections selected from series and parallel connections, thereby generating electric

power and producing heat for at least one energy consuming load; and

respective bridges connected across said units for controlling power produced by said assembly to match an actual load point of said load and electrical current density required by said load exclusively by cutting off and turning on one or more of said units.

11. A fuel-cell system comprising:

a multiplicity of individual electric power generating units selected from individual fuel cells and fuel-cell stacks connected in an assembly by electrical connections selected from series and parallel connections, thereby generating electric power and producing heat for at least one energy consuming load; and

an electrical network monitor connected to an electrical member of said load for controlling power produced by said assembly exclusively by cutting off and turning on one or more of said units.